

WHAT IS CLAIMED IS:

1. A parameter setting device comprising:

a plurality of mechanical operators to which a plurality of parameters are respectively allotted, said mechanical operators respectively setting values of the parameters in accordance with respective operation positions;

a collective renewal data memory that stores collective renewal data for collectively renewing the values of said plurality of parameters;

a collective renewal controlling section for respectively allowing change of the values of said plurality of parameters in accordance with lapse of time to values represented by said collective renewal data upon command of collective renewal, and for respectively allowing movement of the respective operation positions of said plurality of mechanical operators in accordance with the respective values of said plurality of parameters that are changed in accordance with lapse of time;

an invalidation command issuing section for issuing a command of invalidation of said plurality of mechanical operators; and

an invalidation controlling section for setting the values of said plurality of parameters to the values represented by said collective renewal data and for stopping the movement of said plurality of mechanical operators when the command of invalidation of said plurality of mechanical operators is issued by said invalidation command issuing section during the change of the values of the parameters and the movement of the operation positions of the mechanical operators by said collective renewal controlling section.

2. The parameter setting device according to claim 1, wherein said invalidation command issuing section is provided commonly for said plurality

of mechanical operators and is constructed with one invalidation operator that commonly issues a command of invalidation of said plurality of mechanical operators, and

said invalidation controlling section commonly controls setting of the values of said plurality of parameters and stopping of the movement of said plurality of mechanical operators in response to operation of said invalidation operator.

3. The parameter setting device according to claim 1, wherein said invalidation command issuing section is provided in respective correspondence to said plurality of mechanical operators and is constructed with a plurality of invalidation operators that respectively issue commands of invalidation of said plurality of mechanical operators independently, and

said invalidation controlling section controls setting of the values of said plurality of parameters and stopping of the movement of said plurality of mechanical operators individually in response to respective operation of said plurality of invalidation operators.

4. The parameter setting device according to claim 1, further comprising:

a release command issuing section for issuing a command of release of the invalidation of a part of or all of said plurality of mechanical operators; and

a release controlling section for allowing movement of mechanical operators to which the command of release of the invalidation is issued, to operation positions corresponding to the values of the parameters allotted to the mechanical operators in response to the command of release of the invalidation by said release command issuing section.

5. The parameter setting device according to claim 4, wherein said release command issuing section is an exclusive-use operator for issuing a command of release of the invalidation of a part of or all of said plurality of mechanical operators.

6. The parameter setting device according to claim 4, wherein said release command issuing section senses physical contact to said plurality of mechanical operators or displacement of said plurality of mechanical operators, and issues a command of release of the invalidation of mechanical operators for which the physical contact or displacement has been sensed upon sensing the physical contact or displacement.

7. A parameter setting device comprising:

a plurality of mechanical operators to which a plurality of parameters are respectively allotted, said mechanical operators respectively setting values of the parameters in accordance with respective operation positions;

a collective renewal data memory that stores collective renewal data for collectively renewing the values of said plurality of parameters;

a collective renewal controlling section for respectively allowing change of the values of said plurality of parameters in accordance with lapse of time to values represented by said collective renewal data upon command of collective renewal, and for respectively allowing movement of the respective operation positions of said plurality of mechanical operators in accordance with the respective values of said plurality of parameters that are changed in accordance with lapse of time;

an invalidation command issuing section for issuing a command of invalidation of said plurality of mechanical operators;

an invalidation standby state setting section for setting the plurality

of mechanical operators to an invalidation standby state when the command of invalidation of the plurality of mechanical operators is issued by said invalidation command issuing section in a state in which the values of the parameters are not changed and the operation positions of the mechanical operators are not moved by said collective renewal controlling section; and
an invalidation controlling section for setting the values of the parameters, which are allotted to said plurality of mechanical operators, to the values represented by said collective renewal data and for prohibiting the movement of said plurality of mechanical operators when said command of collective renewal is issued in a state in which the plurality of mechanical operators are set to the invalidation standby state by said invalidation standby state setting section.

8. The parameter setting device according to claim 7, wherein said invalidation command issuing section is provided commonly for said plurality of mechanical operators and is constructed with one invalidation operator that commonly issues a command of invalidation of said plurality of mechanical operators, and

said invalidation controlling section commonly controls setting of the values of said plurality of parameters and prohibition of the movement of said plurality of mechanical operators in response to operation of said invalidation operator.

9. The parameter setting device according to claim 7, wherein said invalidation command issuing section is provided in respective correspondence to said plurality of mechanical operators and is constructed with a plurality of invalidation operators that respectively issue commands of invalidation of said plurality of mechanical operators independently, and

said invalidation controlling section controls setting of the values of said plurality of parameters and prohibition of the movement of said plurality of mechanical operators individually in response to respective operation of said plurality of invalidation operators.

10. The parameter setting device according to claim 7, further comprising:

a release command issuing section for issuing a command of release of the invalidation of a part of or all of said plurality of mechanical operators; and

a release controlling section for allowing movement of mechanical operators to which the command of release of the invalidation is issued, to operation positions corresponding to the values of the parameters allotted to the mechanical operators in response to the command of release of the invalidation by said release command issuing section.

11. The parameter setting device according to claim 10, wherein said release command issuing section is an exclusive-use operator for issuing a command of release of the invalidation of a part of or all of said plurality of mechanical operators.

12. The parameter setting device according to claim 10, wherein said release command issuing section senses physical contact to said plurality of mechanical operators or displacement of said plurality of mechanical operators, and issues a command of release of the invalidation of mechanical operators for which the physical contact or displacement has been sensed upon sensing the physical contact or displacement.

13. A parameter setting device comprising:

a plurality of mechanical operators to which a plurality of parameters

are respectively allotted, said mechanical operators respectively setting values of the parameters in accordance with respective operation positions;

a collective renewal data memory that stores collective renewal data for collectively renewing the values of said plurality of parameters;

a collective renewal controlling section for respectively allowing change of the values of said plurality of parameters in accordance with lapse of time to values represented by said collective renewal data upon command of collective renewal, and for respectively allowing movement of the respective operation positions of said plurality of mechanical operators in accordance with the respective values of said plurality of parameters that are changed in accordance with lapse of time;

a release command issuing section for issuing a command of release of the collective renewal of the values of said plurality of parameters; and

a release controlling section for stopping the change of the values of said plurality of parameters and for stopping the movement of said plurality of mechanical operators when the command of release of the collective renewal is issued by said release command issuing section during the change of the values of the parameters and the movement of the operation positions of the mechanical operators by said collective renewal controlling section.

14. The parameter setting device according to claim 13, wherein said release command issuing section is provided commonly for said plurality of parameters and is constructed with one release operator that commonly issues a command of release of the collective renewal of the values of said plurality of parameters, and

said release controlling section commonly controls stopping of the change of the values of said plurality of parameters and stopping of the movement of said plurality of mechanical operators in response to operation of said release operator.

15. The parameter setting device according to claim 13, wherein said release command issuing section is provided in respective correspondence to said plurality of parameters and is constructed with a plurality of release operators that respectively issue commands of release of the collective renewal of the values of said plurality of parameters independently, and

said release controlling section controls stopping of the change of the values of said plurality of parameters and stopping of the movement of said plurality of mechanical operators individually in response to respective operation of said plurality of release operators.

16. A computer program applied to a parameter setting device having a plurality of mechanical operators to which a plurality of parameters are respectively allotted, said mechanical operators respectively setting values of the parameters in accordance with respective operation positions, and a collective renewal data memory that stores collective renewal data for collectively renewing the values of said plurality of parameters, wherein the computer program comprises:

a collective renewal controlling step for respectively allowing change of the values of said plurality of parameters in accordance with lapse of time to values represented by said collective renewal data upon command of collective renewal, and for respectively allowing movement of the respective operation positions of said plurality of mechanical operators in accordance with the respective values of said plurality of parameters that are changed in

accordance with lapse of time; and

an invalidation controlling step for setting the values of said plurality of parameters to the values represented by said collective renewal data and for stopping the movement of said plurality of mechanical operators when a command of invalidation of said plurality of mechanical operators is issued during the change of the values of the parameters and the movement of the operation positions of the mechanical operators by said collective renewal controlling step.

17. A computer program applied to a parameter setting device having a plurality of mechanical operators to which a plurality of parameters are respectively allotted, said mechanical operators respectively setting values of the parameters in accordance with respective operation positions, and a collective renewal data memory that stores collective renewal data for collectively renewing the values of said plurality of parameters, wherein the computer program comprises:

a collective renewal controlling step for respectively allowing change of the values of said plurality of parameters in accordance with lapse of time to values represented by said collective renewal data upon command of collective renewal, and for respectively allowing movement of the respective operation positions of said plurality of mechanical operators in accordance with the respective values of said plurality of parameters that are changed in accordance with lapse of time;

an invalidation standby state setting step for setting the plurality of mechanical operators to an invalidation standby state when a command of invalidation of the plurality of mechanical operators is issued before execution of said collective renewal controlling step; and

an invalidation controlling step for setting the values of the parameters, which are allotted to said plurality of mechanical operators, to the values represented by said collective renewal data and for prohibiting the movement of said plurality of mechanical operators when said command of collective renewal is issued in a state in which the plurality of mechanical operators are set to the invalidation standby state by said invalidation standby state setting step.

18. A computer program applied to a parameter setting device having a plurality of mechanical operators to which a plurality of parameters are respectively allotted, said mechanical operators respectively setting values of the parameters in accordance with respective operation positions, and a collective renewal data memory that stores collective renewal data for collectively renewing the values of said plurality of parameters, wherein the computer program comprises:

a collective renewal controlling step for respectively allowing change of the values of said plurality of parameters in accordance with lapse of time to values represented by said collective renewal data upon command of collective renewal, and for respectively allowing movement of the respective operation positions of said plurality of mechanical operators in accordance with the respective values of said plurality of parameters that are changed in accordance with lapse of time; and

a release controlling step for stopping the change of the values of said plurality of parameters and for stopping the movement of said plurality of mechanical operators when a command of release of the collective renewal of the values of said plurality of parameters is issued during the change of the values of the parameters and the movement of the operation

positions of the mechanical operators by said collective renewal controlling step.